

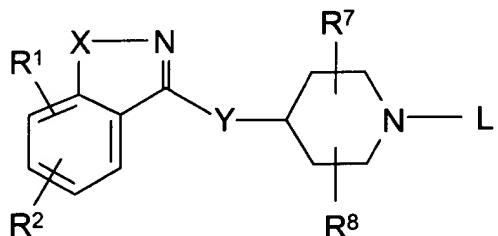
IN THE CLAIMS:

(Currently Amended): METHODS AND COMPOSITIONS FOR TREATING AGE-RELATED BEHAVIORAL DISORDERS IN COMPANION ANIMALS

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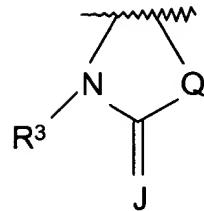
1. (Currently Amended): A method of treating an age-related behavioral disorder in a companion animal comprising administering to a companion animal in need of such treatment a therapeutically effective amount of a compound of Formula I,

FORMULA I



wherein R¹ and R² are each independently selected from the group consisting of hydrogen; (C₁-C₆) alkoxy; benzyloxy; phenoxy; hydroxy; phenyl; benzyl; halo; nitro; cyano; -COR⁵; -COOR⁵; -CONHR⁵; -NR⁵R⁶; -NR⁵COR⁶; -OCONR⁵R⁶; -NHCOOR⁵; (C₁-C₆) alkyl which may be substituted with from 1 to 3 fluorine atoms; SO_pCH₂-phenyl or SO_p(C₁-C₆) alkyl, wherein p is 0, 1 or 2; pyridylmethoxy or thienylmethoxy; 2-oxazolyl; 2-thiazolyl; and benzenesulfonamide; wherein the phenyl moieties of said phenoxy, benzyloxy, phenyl, benzyl and benzenesulfonamide groups, the pyridyl and thienyl moieties of said pyridylmethoxy or thienylmethoxy groups, and the oxazolyl and thiazolyl moieties of said 2-oxazolyl and 2-thiazolyl groups may be substituted with 1 or 2 substituents independently selected from the group consisting of halo, (C₁-C₄) alkyl, trifluoromethyl, (C₁-C₄) alkoxy, cyano, nitro and hydroxy;

or R¹ and R² are attached to adjacent carbon atoms and form, together with the carbon atoms to which they are attached, a group of Formula 2:



FORMULA 2

wherein R³ is hydrogen or (C₁-C₆) alkyl; J is oxygen, sulfur or NR⁴; R⁴ is hydrogen or (C₁-C₄) alkyl; and Q is oxygen, sulfur, NH, CHCH₃, C(CH₃)₂, -CH=CH-, or (CH₂)_I wherein I is an integer from 1 to 3;

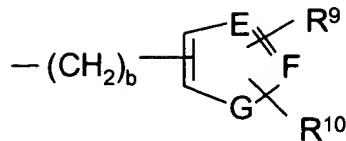
X is oxygen or sulfur;

Y is -(CH₂)_m-, -CH=CH(CH₂)_n-, or -O(CH₂)_m-, wherein n is an integer from 0 to 3, and m is an integer from 1 to 3;

D'cont

R⁵ and R⁶ are each independently selected from the group consisting of hydrogen, (C₁-C₆) alkyl, phenyl, and benzyl, wherein the phenyl moieties of said phenyl and benzyl groups may be substituted with 1 or 2 substituents independently selected from the group consisting of fluoro, chloro, bromo, iodo, (C₁-C₄) alkyl, trifluoromethyl, (C₁-C₄) alkoxy, cyano, nitro and hydroxy; or NR⁵R⁶ together form a 4 or 5 membered ring wherein one atom of the ring is nitrogen and the other is are carbon, oxygen or nitrogen; or NR⁵COR⁶ together form a 4- or 5-membered lactam ring;

L is phenyl, phenyl-(C₁-C₆) alkyl, cinnamyl or pyridylmethyl, wherein the phenyl moieties of said phenyl and phenyl-(C₁-C₆) alkyl may be substituted with 1 to 3 substituents independently selected from the group consisting of (C₁-C₆) alkyl, (C₁-C₆) alkoxy, (C₁-C₄) alkoxy carbonyl, (C₁-C₆) alkyl carbonyl, -OCONR⁵R⁶, -NHCOOR⁵, and halo; or L is a group of Formula 3:



FORMULA 3

wherein b is an integer from 1 to 4; R⁹ and R¹⁰ are independently selected from the group consisting of hydrogen, (C₁-C₄) alkyl, halo, and phenyl; E and F are independently -CH- or nitrogen; and G is oxygen, sulfur or NR⁴, with the proviso that when E and F are both nitrogen, one of R⁹ and R¹⁰ is absent; and

R⁷ and R⁸ are independently selected from the group consisting of hydrogen, (C₁-C₆) alkyl, (C₁-C₆) alkoxy carbonyl, (C₁-C₆) alkyl carbonyl, and (C₁-C₆) alkoxy, with the proviso that said (C₁-C₆) alkoxy is not attached to a carbon that is adjacent to a nitrogen; or a pharmaceutically acceptable salt or solvate thereof, and a pharmaceutically acceptable carrier.

2. (Original): The method of claim 1 wherein the age-related behavioral disorder is cognitive dysfunction syndrome or involutive depression.

3. (Previously Amended): A method of improving the cognitive processing of a companion animal comprising administering to a companion animal in need of such improvement an amount of a compound of Formula I sufficient to improve cognitive processing.

4. (Previously Amended): A method of treating memory loss in a companion animal comprising administering to a companion animal in need of such improvement an amount of a compound of Formula I sufficient to improve cognitive processing.

5. (Previously Amended): A method of treating disorientation or confusion in a companion animal comprising administering to a companion animal in need of such treatment a therapeutically effective amount of a compound of Formula I.

6. (Previously Amended): A method of improving the social interactions of a companion animal comprising administering to a companion animal in need of such improvement a therapeutically effective amount of a compound of Formula I.

cont

7. (Previously Amended): A method of adjusting the sleep-wake cycle of a companion animal comprising administering to a companion animal in need of such adjustment a therapeutically effective amount of a compound of Formula I.

8. (Previously Amended): A method of treating inappropriate elimination in a companion animal comprising administering to a companion animal in need of such treatment a therapeutically effective amount of a compound of Formula I.

9. (Currently Amended): The method of claim 1 or 3-8 wherein the companion animal is a cat or a dog.

10. (Cancelled).

11. (Previously Amended): The method of Claim 1 wherein the compound of Formula 1 is selected from the group consisting of:

5,7-dihydro-7-methyl-3-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-6H-pyrrolo[4,5-f]-1,2-benzisoxazol-6-one;

5,7-dihydro-7-ethyl-3-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-6H-pyrrolo[4,5-f]-1,2-benzisoxazol-6-one;

5,7-dihydro-3-[2-[1-(2-chloro-5-thiophenemethyl)-4-piperidinyl]ethyl]-6H-pyrrolo[4,5-f]-1,2-benzisoxazol-6-one;

5,7-dihydro-3-[2-[1-(2-methyl-4-thiazolemethyl)-4-piperidinyl]ethyl]-6H-pyrrolo[4,5-f]-1,2-benzisoxazol-6-one;

3-[2-[1-(3-bromophenylmethyl)-4-piperidinyl]ethyl]-5,7-dihydro-6H-pyrrolo[4,5-f]-1,2-benzisoxazol-6-one;

3-[2-[1-(4-bromophenylmethyl)-4-piperidinyl]ethyl]-5,7-dihydro-6H-pyrrolo[4,5-f]-1,2-benzisoxazol-6-one;

5,7-dihydro-3-[3-[1-(phenylmethyl)-4-piperidinyl]propyl]-6H-pyrrolo[4,5-f]-1,2-benzisoxazol-6-one;

6,8-dihydro-3-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-7H-pyrrolo[5,4-g]-1,2-benzisoxazol-7-one; and

5,7-dihydro-3-[2-(1-(phenylmethyl)-4-piperidinyl)ethyl]-6H-pyrrolo[4,5-f]-1,2-benzisoxazol-6-one.

12. (Previously Amended): The method of claim 11 wherein the compound of Formula 1 is 5,7-dihydro-3-[2-[1-phenylmethyl)-4-piperidinyl]ethyl]-6H-pyrrolo[4,5-f]-1,2-benzisoxazol-

6-one.

13. – 16 (Cancelled).

17. (Previously Amended): A dosage form of a compound of Claim 1 for use in the treatment of an age-related behavioral disorder in a companion animal.

18. (Original): The dosage form of claim 17 wherein said dosage form is a tablet, troche, dispersion, suspension, solution, capsule, or patch.

D'cont
19. (Previously Amended): The dosage form of Claim 18 wherein the compound of Claim 1 is selected from the group consisting of:

5,7-dihydro-7-methyl-3-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-6H-pyrrolo[4,5-f]-1,2-benzisoxazol-6-one;

5,7-dihydro-7-ethyl-3-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-6H-pyrrolo[4,5-f]-1,2-benzisoxazol-6-one;

5,7-dihydro-3-[2-[1-(2-chloro-5-thiophenemethyl)-4-piperidinyl]ethyl]-6H-pyrrolo[4,5-f]-1,2-benzisoxazol-6-one;

5,7-dihydro-3-[2-[1-(2-methyl-4-thiazolemethyl)-4-piperidinyl]ethyl]-6H-pyrrolo[4,5-f]-1,2-benzisoxazol-6-one;

3-[2-[1-(3-bromophenylmethyl)-4-piperidinyl]ethyl]-5,7-dihydro-6H-pyrrolo[4,5-f]-1,2-benzisoxazol-6-one;

3-[2-[1-(4-bromophenylmethyl)-4-piperidinyl]ethyl]-5,7-dihydro-6H-

pyrrolo[4,5-f]-1,2-benzisoxazol-6-one;

5,7-dihydro-3-[3-[1-(phenylmethyl)-4-piperidinyl]propyl]-6H-pyrrolo[4,5-f]-1,2-benzisoxazol-6-one;

6,8-dihydro-3-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-7H-pyrrolo[5,4-g]-1,2-benzisoxazol-7-one; and

5,7-dihydro-3-[2-(1-(phenylmethyl)-4-piperidinyl)ethyl]-6H-pyrrolo[4,5-f]-1,2-benzisoxazol-6-one.

D'cont

20. (Currently Amended): The dosage form of claim 19 wherein the compound of Formula 1 is 5,7-dihydro-3-[2-1-[(phenylmethyl)-4-piperidinyl]ethyl]-6H-pyrrolo[4,5-f]-1,2-benzisoxazol-6-one.

21. (Previously Amended): The dosage form of claim 20 wherein said dosage form comprises from about 0.001 mg to about 100 mg of the compound of Claim 1.